

SIEMENS



Brochure

Edition
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SITOP smart

The high-performance standard power supply for 1 and 3-phase networks

SITOP smart is the high-performance standard power supply for automated machinery and plants with 24 V or 12 V DC electronics. Thanks to its high overload capability, even loads with high power demand can be connected without difficulty. The 24 V power supplies can continuously manage 120% of the rated power. Thanks to their slim design and seamless installation next to laterally mounting devices, the power supplies require little space on the DIN rail. The high degree of efficiency ensures low energy consumption and minimal heat loss in the control cabinet.

The flexible input voltage ranges allow problem-free connection to 1 and 3-phase networks around the world. Comprehensive certifications also facilitate universal usage, e.g. in hazardous areas.


To further increase the availability, the reliable power supplies can be combined with DC UPS, redundancy and selectivity modules.

The benefits at a glance

- Minimum mounting space required due to slim design, no lateral installation clearances required
- "Extra Power" with 1.5 times the rated current for 5 s/min for brief overloads
- Can be continuously used with 120% of the rated power at up to 45 °C ambient temperature (24 V versions)
- Signaling contact for "output voltage OK" for easy integration in the plant monitoring system
- Low energy consumption and minimal heat dissipation inside the control cabinet due to the high degree of efficiency
- PSU100S:
automatic range switchover 120/230 V AC
- PSU300S:
Wide-range input 400 – 500 V 3 AC
- Adjustable output voltage for compensating voltage drops
- Wide temperature range from -10 to +70 °C
- Numerous certifications for all standard applications worldwide

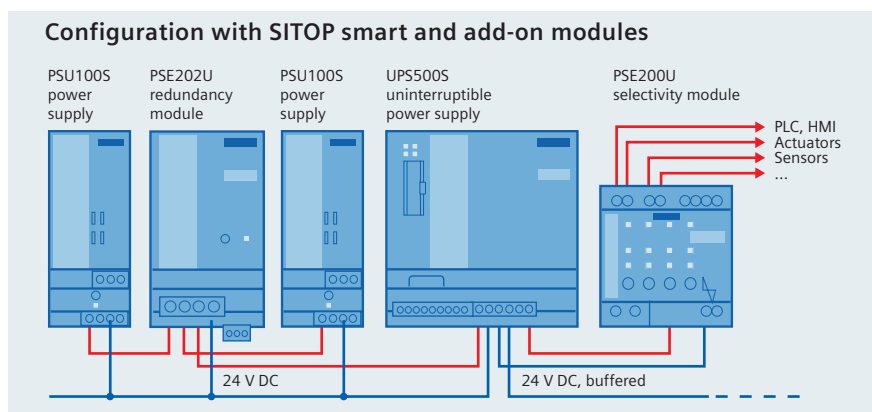
Answers for industry.





Technical specifications ¹⁾

SITOP PSU100S, 1-phase						
						
Output voltage/current	12 V/7 A	12 V/14 A	24 V/2.5 A	24 V/5 A	24 V/10 A	
Order No. ²⁾	6EP1 322-2BA00	6EP1 323-2BA00	6EP1 332-2BA20	6EP1 333-2BA20	6EP1 334-2BA20	
Input voltage	– Rated value 120/230 V AC – Range 85 ... 132/170 ... 264 V AC, automatic range switchover					
Line frequency	– Rated value 50/60 Hz					
Mains buffering	20 ms (at 93/187 V AC)					
Input current						
– Rated value at 120 V/230 V AC	1.73 A/0.99 A	3.24 A/1.41 A	1.25 A/0.74 A	2.34 A/1.36 A	4.49 A/1.91 A	
– Inrush current (25 °C)	< 45 A	< 60 A	< 33 A	< 40 A	< 60 A	
– Recommended MCB	From 6 A, C characteristic	From 10 A, C characteristic	From 3 A, C characteristic	From 6 A, C characteristic	From 10 A, C characteristic	
Output voltage	– Rated value 12 V DC – Tolerance ± 3% – Adjustment range 11.5 ... 15.5 V DC		24 V DC ± 3% 22.8 ... 28 V DC			
Output current	– Rated value 7 A – Continuously up to +45 °C – Derating from +55 °C (5%/K)	14 A 14 A from +55 °C (5%/K)	2.5 A 3 A from +60 °C (3%/K)	5 A 6 A from +60 °C (3%/K)	10 A 12 A from +60 °C (3%/K)	
Overload response	Extra Power: 1.5 x rated output current for 5 s/min					
Switching in parallel	Yes					
Efficiency at rated value, approx.	84%	87%	85%	88%	90%	
Short-circuit protection	Constant current characteristic					
Radio interference suppression (EN 55022)	Class B					
Radio interference suppression (EN 61000-3-2)	Yes		not applicable		Yes	
Degree of protection EN 60529	IP20					
Ambient temperature	-10 ... +70 °C					
Dimensions (W x H x D) in mm	50 x 125 x 125	70 x 125 x 125	32.5 x 125 x 125	50 x 125 x 125	70 x 125 x 125	
Weight, approx.	0.5 kg	0.8 kg	0.32 kg	0.5 kg	0.8 kg	
Approvals	CE, cULus, ATEX; available soon: GL, and cCSAus Class1 Div 2					

SITOP add-on modules – customized all-round protection

Optional add-on modules intercept individual interference factors such as mains and voltage fluctuations and allow operation in regions with unreliable quality of supply. Fault-related overload in the output circuit is selectively disconnected so that the supply to the other loads is maintained.



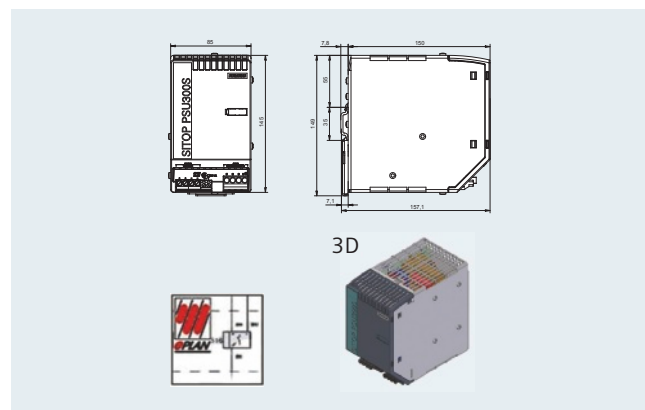
SITOP PSU300S, 3-phase					
					Output voltage/current
24 V/20 A	24 V/10 A	24 V/20 A	24 V/40 A		Order No. ²⁾
6EP1 336-2BA10	6EP1 434-2BA10	6EP1 436-2BA10	6EP1 437-2BA20		Input voltage
120/230 V AC 85 ... 132/170 ... 264 V AC, autom. range switchover	400 – 500 V 3 AC 340 ... 550 V 3AC				– Rated value – Range
50/60 Hz	50/60 Hz				– Rated value Line frequency
20 ms (at 93/187 V)	> 6 ms (at 400 V)				Mains buffering
7.5 A/3.5 A < 11 A From 10 A, characteristic C or 3RV2411-1JA10 (120 V) or 3RV2411-1FA10 (230 V)	0.7 – 0.5 A < 36 A From 6 to 16 A charact. C, 3-ph. coupled or 3RV2 011-1DA10 or 3RV2 711-1DD10	1.2 – 1.0 A < 36 A From 6 to 16 A charact. C, 3-ph. coupled or 3RV2 011-1DA10 or 3RV2 711-1DD10	1.7 – 1.5 A < 60 A From 10 to 16 A charact. C, 3-ph. coupled or 3RV2 011-1DA10 or 3RV2 711-1DD10		Input current – Rated value at 120 V/230 V AC – Inrush current (25 °C) – Required line protection (PSU300S) Recommended MCB (PSU100S)
24 V DC ± 3% 24 ... 28 V DC					– Rated value – Tolerance – Adjustment range Output voltage
10 A 24 A from + 60 °C (5%/ K)	10 A 12 A –	20 A 24 A from + 60°C (5%/ K)	40 A 48 A from + 60°C (2.5%/ K)		– Rated value – Output current – Continuously up to +45 °C – Derating
Extra Power: 1.5 x rated output current for 5 s/min, 120% continuously up to 45 °C					Overload response
Yes					Switching in parallel
90%	91%	91%	91.5%		At rated value approx. Efficiency
Yes, electronic shutdown and automatic restart					Short-circuit protection
Class B					Radio interference suppression (EN 55022)
Yes					Radio interference suppression (EN 61000-3-2)
IP20					Degree of protection EN 60529
-10 ... +70 °C					Ambient temperature
115 x 145 x 150	90 x 145 x 150	90 x 145 x 150	150 x 145 x 150		Dimensions (W x H x D) in mm
1.6 kg	2.6 kg	2.6 kg	3.7 kg		Weight, approx.
CE, cULus, ATEX, cCSAus Class1 Div 2, GL	CE, cULus, ATEX, cCSAus Class1 Div 2, GL				Approvals

1) Technical data apply with rated input voltage and +25 °C ambient temperature (if not specified otherwise).

2) You can find up-to-date ordering data as well as our terms of sale and delivery on the Internet.

Everything for project planning

Additional information such as 3D data, circuit diagram macros, certificates, and operating instructions are available at the click of a mouse. The project data can be downloaded in the formats DXF, STEP, and EPLAN and used directly for your configuration. They are also available via the CAx Download Manager and can be individually selected there as required and called up as a download.



Further information

More information on SITOP smart
www.siemens.com/sitop-smart

Information material for download:
www.siemens.com/sitop-infomaterial

The SITOP Selection Tool for selecting the appropriate power supply:
www.siemens.com/sitop-selection-tool

Operating instructions for downloading:
www.siemens.com/sitop/manuals

CAX data (2D, 3D, circuit diagram macro) as download:
www.siemens.com/sitop-cax

Industry Mall for electronic ordering:
www.siemens.com/industrymall

SITOP contact:
www.siemens.com/automation/partner

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